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Supplementary Materials

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Reversed stimulus locked functional network time series analysis

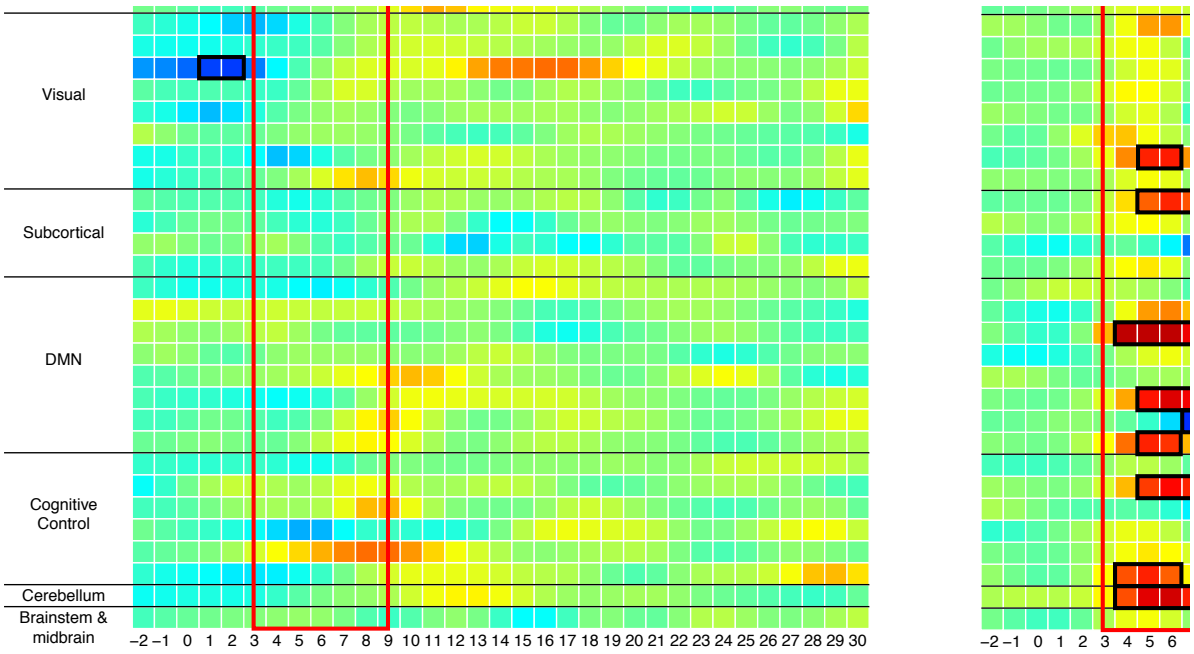

Figure S1. Relation between stimulus pleasantness and functional network responses across stimulus modalities

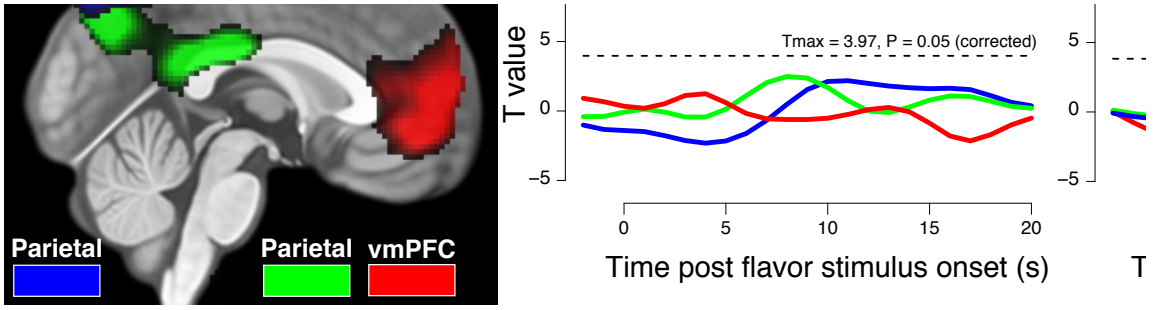

Figure S2. Relation between pleasantness ratings and functional network time courses

As the SL FNTSA results on stimulus pleasantness in the main text may be biased to the flavor task, we reversed the ICA process by performing an ICA on the data of the images task and a spatially constrained ICA on the fMRI time series of the flavor task to parcelate this data into FNs with similar spatial properties to the images task. The number of components was estimated using the MDL algorithm (Li et al., 2007), which resulted in 52 ICs. This number is lower than the ICA preformed on the flavor task, which we expected because the image task consists of approximately half the total number of time points of the flavor task and the number of available time points is positively related to the number of components that can be estimated from the data (see e.g., Olafsson et al., 2015). After visual inspection of the independent components, 16 components were determined to be spatially located within CSF and were therefore disregarded. The subsequent analysis steps were identical to the analysis presented in the main text and performed on 36 FNs (see Table S4). A total of 1188 (33 time points x 36 FNs) and 828 (23 time points x 36 FNs) models were performed for the flavor and image task, respectively. Corrected p-values across components and time bins were again calculated using

permutation maximum statistics on the LMM T-values (Nichols and Holmes, 2002). Pleasantness ratings were randomized 1000 times to perform a total of 2,016,000 random LMMs.

The results presented in Figure S1 show that 8 out of 36 FNs were significantly related to image pleasantness ratings (adjusted for intensity) within the 3-9s post stimulus time window. We found no association between FNs and flavor pleasantness ratings within the same post stimulus time window. Additionally, the results show that we found less FNs related to gustatory and olfactory processing. In Figure S2-A we show the spatial maps of the FNs spatially located in the default mode network (DMN) that were significantly related to image pleasantness ratings. In S2-B we show the post stimulus onset temporal change in T-values of this relation for the flavor task while S2-C shows the same relation for the image task. Statistics are reported in Table S4.

From these results, we conclude that when we bias the ICA towards the image task, the analysis is less sensitive with respect to flavor stimulus processing but there is still a difference in pleasantness processing within the vmPFC across modalities.

Stimulus locked functional network time series analysis on rating condition

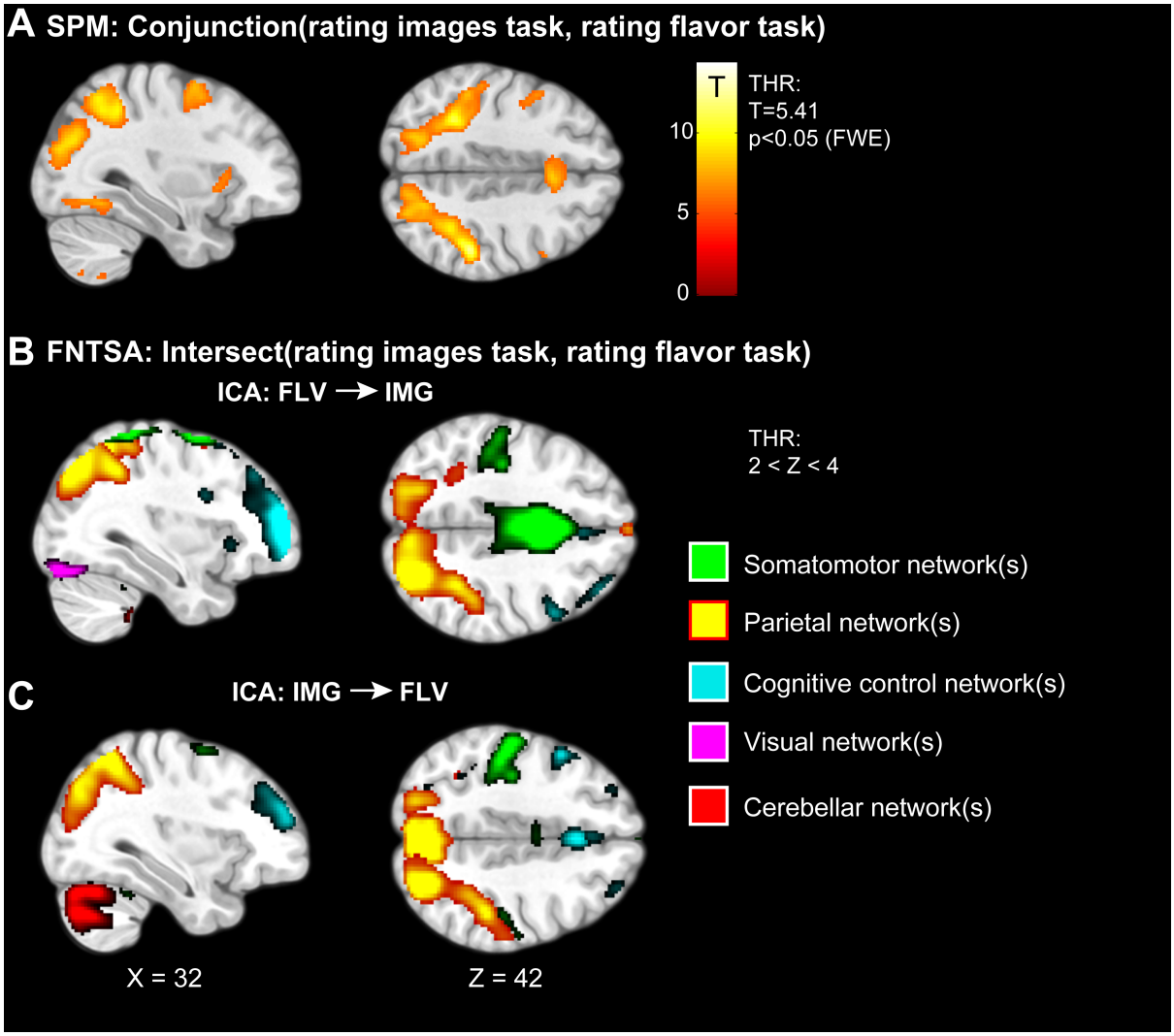

Figure S3. Control analysis on ratings screens across tasks: SPM conjunction analysis vs. FNTSA.

In both fMRI tasks, participants were required to use rating screens to express pleasantness and intensity ratings. As these rating screens were identical across fMRI tasks, we used this condition to compare an SPM conjunction analysis with the SL FNTSA. In Figure S3-A we show the result of the conjunction analysis across the conditions: [rating an image vs. baseline] & [rating a flavor vs. baseline]. The resulting contrast shows robust BOLD activity in frontoparietal and visual regions. In Figure S3-B and Figure S3-C, we show the result of 2 FNTSAs. In S3-B we performed an SL FNTSA analogously to our analysis on stimulus pleasantness presented in the main text. Here, we calculated 18 time bins for the flavor and visual paradigm (3s pre-stimulus onset and 15s post-stimulus onset), and performed 1314 (18x73) linear mixed models for both the flavor and visual paradigm. For each model, the time course score was entered as dependent variable, while the intercept was entered as independent variable such that we acquired the average 'activation' per component per time bin across subjects. Subject id constituted as a random variable to take care of repeated measures. Corrected p-values across components and time bins were calculated using permutation maximum statistics on the LMM T-values (Nichols and Holmes, 2002). We randomized the sign of the time course value 1000 times to perform a total of 2,628,000 random LMMs and thresholded results at $p<0.05$ (corrected). Subsequently, we intersected

the thresholded results to determine which FN time courses were significantly associated with the rating condition across tasks in the 3-9s post-stimulus timeframe. Within this timeframe, we found that 14 (out of 73) FNs were associated with the rating condition in both tasks. As the result shown in S4-B might be biased to the flavor task, we repeated the analysis for a reversed ICA (see previous section for more details). The subsequent analysis steps were identical to the analysis in S4-B and performed on 36 FNs: 648 (18x36) linear mixed models per task; 1,296,000 randomized models for 1000 permutations. We found that 10 FNs were associated with the rating condition at the same time points in both tasks. Statistics on peak voxels and FNs of all three analyses are given in Table S4 and Table S5.

This control analysis shows that the FNTSA results not only largely overlap with the SPM conjunction analysis result but also suggests higher statistical sensitivity as we found additional regions associated with the rating condition across the flavor and image tasks. Furthermore, the FNTSA allows teasing apart a statistical parametric brain map into different networks that are jointly associated with the task.

Table S1 - SPM modality and pleasantness contrast results

						MNI (mm)		
Contrast	**Area**	**Size (k)**	**p(FWE-corr)**	**T**	**p(unc)**	**x**	**y**	**z**
Flavor vs baseline	Bilateral Nucleus of the solitary tract	379	0.000	12.11	< 0.001	-6	-38	-48
			0.000	9.46	< 0.001	8	-38	-48
			0.001	8.87	< 0.001	2	-44	-60
	Right Precentral Gyrus / Postcentral Gyrus / Insula	2238	0.000	11.41	< 0.001	62	-6	30
			0.000	10.8	< 0.001	44	-8	12
			0.000	10.68	< 0.001	52	2	8
	Left Precentral Gyrus / Postcentral Gyrus / Insula	2269	0.000	10.26	< 0.001	-56	-10	14
			0.000	10.03	< 0.001	-56	-8	32
			0.000	9.8	< 0.001	-46	-16	32
	Superior Frontal Gyrus / Supplementary motor area	831	0.000	9.76	< 0.001	18	-8	68
			0.002	8.29	< 0.001	-2	4	52
			0.002	8.26	< 0.001	6	0	58
	Left Cerebellum	441	0.000	9.52	< 0.001	-14	-60	-24
			0.006	7.49	< 0.001	-12	-74	-20
			0.026	6.61	< 0.001	-18	-86	-24
	Left lateral orbitofrontal cortex	59	0.000	9.31	< 0.001	-20	44	-12
	Right Cerebellum	367	0.000	9.3	< 0.001	18	-58	-26
	Right lateral orbitofrontal cortex	134	0.000	9.29	< 0.001	24	46	-14
	Left lingual Gyrus / Left Cuneus	258	0.001	9.1	< 0.001	-16	-92	-10
			0.004	7.8	< 0.001	-18	-90	2
	Left Cerebellum	329	0.001	8.68	< 0.001	-14	-66	-50
			0.002	8.2	< 0.001	-32	-54	-50
			0.019	6.78	< 0.001	-24	-62	-44
	Right Cerebellum	202	0.001	8.6	< 0.001	18	-70	-48
	Right anterior Insula	10	0.003	8.04	< 0.001	18	28	8
	Left anterior Insula	12	0.003	8.03	< 0.001	-26	28	6
	Right Cerebellum	153	0.004	7.86	< 0.001	50	-66	-30
			0.008	7.34	< 0.001	50	-64	-20
			0.010	7.19	< 0.001	32	-84	-20
	Left Amygdala / Hippocampus	226	0.004	7.85	< 0.001	-24	-4	-22
			0.005	7.59	< 0.001	-28	-10	-14
			0.013	7.05	< 0.001	-34	-8	-22
	Superior Temporal Gyrus	62	0.004	7.83	< 0.001	58	-32	14
	Right Cerebellum	121	0.005	7.67	< 0.001	30	-48	-54

Right Hippocampus	31	0.005	7.62	< 0.001	38	-22	-12
Thalamus	145	0.006	7.52	< 0.001	4	-28	8
		0.016	6.89	< 0.001	10	-34	10
		0.016	6.88	< 0.001	2	-6	6
Right Amygdala	112	0.006	7.51	< 0.001	22	-2	-22
Right Posterior Insula	62	0.009	7.27	< 0.001	42	-16	-8
Periaqueductal Grey	30	0.009	7.27	< 0.001	-6	-36	-26
Ventrolateral Prefrontal cortex	27	0.016	6.88	< 0.001	42	42	6
Right Anterior Insula	9	0.017	6.87	< 0.001	36	34	2
Postcentral Gyrus	14	0.018	6.84	< 0.001	20	-26	58
Brainstem	14	0.021	6.73	< 0.001	18	-26	-34
		0.046	6.24	< 0.001	12	-20	-34
Left Posterior Insula	5	0.021	6.71	< 0.001	-38	-32	24
Right Subthalamic Nucleus	4	0.024	6.65	< 0.001	14	-22	-6
Left inferior occipital Gyrus	5	0.025	6.63	< 0.001	-30	-80	-12
Periaqueductal grey	14	0.025	6.61	< 0.001	8	-36	-30
Substantia Nigra	6	0.026	6.59	< 0.001	-2	-30	-12
Right Cerebellum	4	0.027	6.58	< 0.001	6	-84	-32
White Matter	5	0.027	6.57	< 0.001	-26	-34	4
Left Cerebellum	3	0.028	6.55	< 0.001	-24	-84	-24
Left Cerebellum	3	0.028	6.54	< 0.001	-28	-82	-24
Left Inferior Temporal Gyrus	7	0.028	6.54	< 0.001	-42	-30	-16
		0.034	6.42	< 0.001	-38	-22	-14
Left Parahippocampal Gyrus	8	0.029	6.53	< 0.001	-34	-42	-6
Right Anterior Insula	18	0.032	6.46	< 0.001	36	18	0
Right Hippocampus	16	0.033	6.44	< 0.001	28	-14	-12
Left Precentral Gyrus	5	0.035	6.42	< 0.001	-20	-26	58
Left Lateral orbitofrontal cortex	1	0.036	6.39	< 0.001	-16	36	-20
White Matter	2	0.036	6.38	< 0.001	18	-32	40
Left inferior Temporal Gyrus	1	0.037	6.37	< 0.001	-48	-36	-16
White Matter	2	0.037	6.37	< 0.001	-42	-36	26
White Matter	5	0.038	6.36	< 0.001	-12	-36	8
Superior Frontal Gyrus	3	0.038	6.35	< 0.001	-26	-2	68
White Matter	1	0.040	6.33	< 0.001	32	40	14
White Matter	1	0.040	6.32	< 0.001	-44	-38	-14
Right Superior Temporal pole	3	0.040	6.32	< 0.001	54	14	-10
Right lingual Gyrus	4	0.044	6.26	< 0.001	18	-90	-10
Left Cerebellum	1	0.044	6.26	<	-	-	-

					0.001	30	80	22
	Right anterior Insula	5	0.044	6.26	< 0.001	42	4	-10
	Left superior Temporal Gyrus	3	0.045	6.24	< 0.001	-60	-32	14
	White Matter	1	0.048	6.2	< 0.001	-34	2	-28
	White Matter	2	0.048	6.2	< 0.001	2	-64	4
	Left superior Temporal Gyrus	1	0.050	6.19	< 0.001	-54	-34	12
Contrast		**Size (k)**	**p(FWE-corr)**	**T**	**p(unc)**	**x**	**y**	**z**
Flavor Pleasantness	Right Ventrolateral Prefrontal cortex	75	0.482	5.1	< 0.001	32	48	8
	Left Ventrolateral Prefrontal cortex	106	0.781	4.6	< 0.001	-14	38	-8
			0.978	4.02	< 0.001	-24	40	-8
	Post cingulate Gyrus	9	0.877	4.4	< 0.001	18	-52	28
	Right anterior Insula	10	0.912	4.31	< 0.001	30	26	10
	Right Ventrolateral Prefrontal cortex / Right Ventromedial Prefrontal cortex	125	0.953	4.17	< 0.001	28	38	-10
			0.984	3.97	< 0.001	16	38	-12
	Right Ventrolateral Prefrontal cortex	2	0.995	3.83	< 0.001	18	44	10
	Right Dorsolateral Prefrontal cortex	5	0.997	3.74	< 0.001	32	18	48
	Precuneus	1	0.998	3.74	< 0.001	-8	-34	56
	White Matter	1	0.998	3.72	< 0.001	-26	24	8
	Precuneus	2	0.998	3.71	< 0.001	10	-32	54
	White Matter	1	0.999	3.65	< 0.001	-36	-40	4
Contrast		**Size (k)**	**p(FWE-corr)**	**T**	**p(unc)**	**x**	**y**	**z**
Image vs Baseline	Fusiform Gyrus / Middle occipital Gyrus	15557	0.000	22.53	< 0.001	26	-64	-10
			0.000	20.47	< 0.001	30	-48	-14
			0.000	18.4	< 0.001	-42	-78	6
	Right Cerebellum	148	0.000	12.94	< 0.001	18	-46	-46
	Left Cerebellum	129	0.000	11.66	< 0.001	-18	-38	-46
	Left Cerebellum	45	0.000	11.41	< 0.001	-8	-74	-42
	Right Superior Parietal lobule	300	0.000	11.14	< 0.001	32	-56	54
			0.000	10.19	< 0.001	22	-62	58
			0.003	8.53	< 0.001	22	-64	48
	Cerebellum	102	0.000	10.7	< 0.001	0	-56	-36
	Right Parahippocampal Gyrus / Right Amygdala	292	0.000	9.98	< 0.001	22	-10	-22
			0.001	9.71	< 0.001	30	2	-22
	Superior Temporal Gyrus	79	0.001	9.84	< 0.001	-40	16	-22
	Anterior Cingulate	112	0.001	9.15	< 0.001	-4	-4	30
			0.002	8.86	< 0.001	-2	4	26
	Right Dorsolateral Prefrontal cortex	69	0.001	9.14	< 0.001	52	16	24
	Right Dorsolateral Prefrontal cortex	58	0.002	9.05	< 0.001	54	34	12

	Left Hippocampus / Left Amygdala	189	0.002	8.84	< 0.001	-18	-12	-22
			0.004	8.38	< 0.001	-30	2	-22
	Subcallosal Gyrus	14	0.006	8.1	< 0.001	2	14	-14
	Left Cerebellum	19	0.011	7.74	< 0.001	-6	-72	-24
	Inferior Temporal Gyrus	5	0.022	7.29	< 0.001	38	-12	-32
	Hypothalamus	3	0.023	7.25	< 0.001	-4	-2	-10
	Left Dorsolateral Prefrontal cortex	5	0.037	6.94	< 0.001	-48	10	24
	Left Anterior Insula	1	0.049	6.77	< 0.001	-32	22	-2
Contrast		**Size (k)**	**p(FWE-corr)**	**T**	**p(unc)**	**x**	**y**	**z**
Image Pleasantness	Posterior Cingulate / Precuneus	13512	0.002	8.57	< 0.001	-16	-62	14
			0.015	7.13	< 0.001	10	-56	44
			0.018	7.03	< 0.001	0	-76	38
	Right Supramarginal Gyrus	2223	0.017	7.07	< 0.001	58	-46	16
			0.020	6.96	< 0.001	48	-48	6
			0.087	6.03	< 0.001	60	-48	32
	Subcallosal Gyrus	96	0.047	6.41	< 0.001	-8	20	-12
	Ventromedial Prefrontal cortex	967	0.049	6.39	< 0.001	2	48	-6
			0.165	5.62	< 0.001	12	38	-10
			0.894	4.09	< 0.001	0	62	12
	Left Cerebellum	1971	0.060	6.26	< 0.001	-14	-36	-16
			0.099	5.95	< 0.001	-18	-46	-36
			0.343	5.11	< 0.001	-24	-38	-36
	Left Supramarginal Gyrus	811	0.103	5.92	< 0.001	-46	-66	38
			0.540	4.74	< 0.001	-46	-56	54
			0.563	4.7	< 0.001	-44	-50	30
	Left Dorsolateral Prefrontal cortex	573	0.174	5.58	< 0.001	-36	48	26
			0.517	4.78	< 0.001	-26	50	34
			0.839	4.22	< 0.001	-26	26	38
	Right Dorsolateral Prefrontal cortex	432	0.277	5.26	< 0.001	28	44	42
			0.422	4.95	< 0.001	20	24	50
			0.527	4.76	< 0.001	24	32	32
	Precentral Gyrus / Supplementary Motor Area	202	0.332	5.13	< 0.001	-26	-12	70
			0.406	4.98	< 0.001	-22	-2	68
			0.866	4.16	< 0.001	-12	0	70
	Right Caudate	22	0.332	5.13	< 0.001	16	14	20
			0.984	3.7	< 0.001	18	4	24
	Middle Occipital Gyrus	163	0.378	5.04	< 0.001	-26	-98	0
			0.643	4.57	<	-	-	0

				0.001	22	88	
Left Posterior Insula	5	0.384	5.02	< 0.001	-30	-32	18
Left Ventrolateral Prefrontal cortex	22	0.387	5.02	< 0.001	-18	54	-12
Left Middle Frontal Gyrus	58	0.458	4.88	< 0.001	-34	6	50
Supplementary motor Area	241	0.475	4.85	< 0.001	12	6	70
		0.551	4.72	< 0.001	14	-6	70
		0.854	4.19	< 0.001	30	8	64
Substantia nigra	35	0.514	4.78	< 0.001	0	-30	-14
Left Posterior Insula	1	0.525	4.76	< 0.001	-28	-28	16
Right Caudate	18	0.694	4.48	< 0.001	20	-22	20
		0.972	3.8	< 0.001	18	-28	14
Left Middle Temporal Gyrus	10	0.721	4.44	< 0.001	-48	-12	-20
Left Middle Occipital Gyrus / Middle Temporal Gyrus	247	0.736	4.41	< 0.001	-42	-66	12
		0.740	4.41	< 0.001	-48	-74	14
Middle Occipital Gyrus / Inferior Occipital Gyrus	173	0.760	4.37	< 0.001	34	-92	-2
		0.798	4.3	< 0.001	34	-90	-12
		0.813	4.27	< 0.001	24	-94	0
Left Caudate	6	0.790	4.32	< 0.001	-4	22	4
Right Middle Temporal Gyrus	20	0.821	4.26	< 0.001	66	-20	-10
Right Inferior Temporal Gyrus	11	0.833	4.23	< 0.001	44	4	-44
Left Posterior Insula	10	0.856	4.18	< 0.001	-24	-34	12
White Matter	6	0.864	4.16	< 0.001	32	-58	4
Left Dorsolateral Prefrontal cortex	14	0.865	4.16	< 0.001	-26	40	44
Right Ventrolateral Prefrontal cortex	12	0.866	4.16	< 0.001	30	48	-14
Left posterior Insula	11	0.875	4.14	< 0.001	-38	-18	22
Left Cerebellum	38	0.875	4.14	< 0.001	-16	-40	-50
Posterior Cingulate	7	0.886	4.11	< 0.001	2	-28	16
Right Ventrolateral Prefrontal cortex	66	0.901	4.07	< 0.001	32	54	14
White Matter	3	0.901	4.07	< 0.001	34	-50	4
Middle Temporal Gyrus	4	0.910	4.05	< 0.001	-42	4	-30
Subcallosal Gyrus	7	0.931	3.98	< 0.001	12	22	-8
Brain stem	12	0.939	3.95	< 0.001	-6	-22	-24
Left Dorsolateral Prefrontal cortex	12	0.950	3.91	< 0.001	-20	22	48
Subcallosal Gyrus	2	0.956	3.88	< 0.001	6	24	-8
Thalamus	18	0.958	3.87	< 0.001	2	-10	6
Left Dorsolateral Prefrontal cortex	25	0.962	3.85	< 0.001	36	50	26
		0.989	3.64	< 0.001	34	42	24
Anterior Cingulate	34	0.964	3.84	< 0.001	6	32	20

White Matter	11	0.965	3.84	< 0.001	-34	-40	-4
Left parahippocampal Gyrus	10	0.971	3.8	< 0.001	-18	-6	-30
Right Cerebellum	10	0.971	3.8	< 0.001	14	-66	-28
Subgenual Cingulate	1	0.971	3.8	< 0.001	8	26	-10
Left Cerebellum	10	0.977	3.76	< 0.001	-8	-46	-46
White Matter	3	0.980	3.74	< 0.001	-14	28	4
Cerebellum	7	0.982	3.72	< 0.001	-2	-62	-48
Left Parahippocampal Gyrus	1	0.984	3.7	< 0.001	-22	-18	-28
White Matter	1	0.985	3.69	< 0.001	22	-30	14
Left Dorsolateral Prefrontal cortex	4	0.986	3.68	< 0.001	-22	32	52
Left Inferior Temporal Gyrus	2	0.989	3.64	< 0.001	-56	-10	-24
Right Cuneus	2	0.990	3.62	< 0.001	14	-98	14
White Matter	1	0.991	3.62	< 0.001	46	-32	28
Superior Temporal Gyrus	1	0.991	3.61	< 0.001	-46	-50	8
Superior Frontal Gyrus	1	0.993	3.59	< 0.001	40	14	54
Right Caudate	1	0.993	3.58	< 0.001	18	20	14

Results table from the conventional mass univariate analysis. The contrasts [Flavor vs Baseline], [Flavor pleasantness], [Image vs Baseline], and [Image pleasantness] are reported.

Table S2: SPM pleasantness across modalities

						MNI (mm)		
Contrast	**Area**	**Size (k)**	**P(FEW-corr)**	**T**	**P(unc)**	**x**	**y**	**z**
Conjunction	mPFC	32		4.2	< 0.001	12	46	-8
	R parahippocampal gyrus	3		3.82	< 0.001	18	-34	-16
	Superior frontal gyrus	2		3.54	< 0.001	18	26	48
	mPFC	7		3.49	< 0.001	-14	46	-8
	mPFC	1		3.35	< 0.001	8	36	-8
Contrast	**Area**	**Size (k)**	**P(FEW-corr)**	**T**	**P(unc)**	**x**	**y**	**Z**
Flavor pleasantness – image pleasantness	R OFC	77		4.76	< 0.001	30	36	-10
	R OFC	16		3.95	< 0.001	12	44	-14
	R Inferior temporal gyrus	27		3.82	< 0.001	38	-12	-28
	L Inferior temporal gyrus	5		3.62	< 0.001	-42	-12	-28
	Posterior cingulate gyrus	2		3.61	< 0.001	14	-14	48
	mOFC	2		3.53	< 0.001	4	28	-6
	L mOFC	1		3.52	< 0.001	-14	44	-18
	L mOFC	2		3.49	< 0.001	-14	30	-20
	R superior frontal gyrus	1		3.41	< 0.001	18	28	46
	L mOFC	3		3.39	< 0.001	-22	38	-10
	midbrain	1		3.38	< 0.001	6	-32	-12
	Cerebellum / Vermis	1		3.33	< 0.001	2	-52	-16
Contrast	**Area**	**Size (k)**	**P(FEW-corr)**	**T**	**P(unc)**	**x**	**y**	**z**
Image pleasantness-flavor pleasantness	Anterior Cingulate Gyrus	1166	0.02	5.7	< 0.001	-6	-2	38
			0.073	5.2	< 0.001	-4	22	28
			0.126	4.97	< 0.001	-4	12	32
	R aInsula / operculum	279	0.058	5.29	< 0.001	46	8	-2
	R superior temporal gyrus	207	0.078	5.17	< 0.001	64	-48	16
			0.55	4.25	< 0.001	58	-60	14
	Temporal pole	30	0.082	5.15	< 0.001	46	10	-42
	Superior frontal gyrus	226	0.138	4.94	< 0.001	30	40	44
			0.545	4.26	< 0.001	38	34	40
			0.788	3.96	< 0.001	20	54	34
	L aInsula / operculum	328	0.194	4.79	< 0.001	-54	14	-2
			0.691	4.09	< 0.001	-48	8	-6
			0.731	4.04	< 0.001	-58	6	4
	Precuneus	1075	0.212	4.75	< 0.001	-12	-50	50
			0.399	4.44	< 0.001	6	-32	74
			0.413	4.42	< 0.001	6	-52	64
	L middle frontal gyrus	162	0.239	4.69	< 0.001	-36	38	24
			0.357	4.5	< 0.001	-30	52	20
	L Caudate	92	0.256	4.66	< 0.001	-6	22	2
			0.884	3.82	< 0.001	-14	16	-6
	Superior Temporal Gyrus	68	0.276	4.63	< 0.001	50	-18	-2
	Postcentral Gyrus	17	0.305	4.58	< 0.001	24	-28	54
	Precuneus	226	0.352	4.51	< 0.001	6	-42	6
			0.955	3.65	< 0.001	2	-64	2
	R aInsula	61	0.417	4.42	< 0.001	40	18	8
			0.83	3.91	< 0.001	34	18	14
	R Supramarginal Gyrus	230	0.549	4.25	< 0.001	54	-40	40
			0.645	4.14	< 0.001	60	-48	36
			0.858	3.86	< 0.001	64	-36	28
	L Inferior parietal gyrus	71	0.572	4.23	< 0.001	-44	-50	54
	R thalamus	8	0.578	4.22	< 0.001	20	0	-30
	R hippocampal gyrus	28	0.61	4.18	< 0.001	26	-22	-10
	L Middle Temporal Gyrus	15	0.612	4.18	< 0.001	-50	-48	22
	Precuneus	138	0.647	4.14	0.001	4	-78	42
			0.959	3.63	< 0.001	6	-68	38
			0.976	3.56	< 0.001	16	-84	42
	mPFC	39	0.688	4.09	< 0.001	2	62	14
	L Precentral gyrus	48	0.725	4.05	< 0.001	-40	0	50
	mPFC	143	0.738	4.03	< 0.001	-8	46	34
			0.747	4.02	< 0.001	-4	56	38
	Precuneus	31	0.772	3.99	< 0.001	-10	-74	52
	R Putamen	55	0.773	3.99	< 0.001	20	18	-2
			0.863	3.85	< 0.001	10	22	2
	L Cerebellum	184	0.775	3.98	< 0.001	-40	-56	-30
			0.814	3.93	< 0.001	-42	-48	-28
			0.873	3.84	< 0.001	-42	-70	-32
	Thalamus	30	0.814	3.93	< 0.001	0	-12	12

R superior frontal gyrus	14	0.825	3.91	< 0.001	32	58	14
Precuneus	61	0.879	3.83	< 0.001	12	-66	18
R inferior temporal gyrus	5	0.891	3.8	< 0.001	34	0	-46
R superior temporal gyrus	27	0.955	3.65	< 0.001	60	-6	2
R lingual gyrus	27	0.965	3.61	< 0.001	16	-88	-18
L middle temporal gyrus	12	0.969	3.59	< 0.001	-56	-20	0
R caudate	5	0.973	3.57	< 0.001	14	10	12
L postcentral gyrus	5	0.975	3.56	0.001	-50	-8	22
L Supramarginal Gyrus	18	0.975	3.56	0.001	-40	-46	38
L parahippocampal gyrus	10	0.978	3.55	0.001	-14	-34	-10
R precentral gyrus	17	0.98	3.54	0.001	56	2	14
R caudate	1	0.982	3.52	0.001	16	-8	18
L thalamus	7	0.984	3.51	0.001	-10	-34	0
R cerebellum	2	0.987	3.48	0.001	46	-46	-32
R precentral gyrus	19	0.988	3.48	0.001	46	4	46
L postcentral gyrus	3	0.991	3.44	0.001	-54	-6	16
R caudate	1	0.992	3.44	0.001	8	20	12
R inferior temporal gyrus	5	0.992	3.44	0.001	48	-50	-24
L precentral gyrus	5	0.992	3.43	0.001	-54	-2	36
R middle temporal gyrus	2	0.994	3.41	0.001	60	-24	-16
L aInsula	2	0.994	3.39	0.001	-26	30	0
L postcentral gyrus	5	0.995	3.39	0.001	-36	-26	54
R cerebellum	3	0.995	3.39	0.001	14	-86	-30
Precuneus	1	0.996	3.37	0.001	-14	-64	34
R thalamus	4	0.996	3.37	0.001	8	-4	2
Cuneus	1	0.996	3.37	0.001	16	-86	38
SMA	1	0.996	3.36	0.001	14	16	56
Anterior Cingulate gyrus	1	0.997	3.34	0.001	6	22	18
L Insula	1	0.997	3.33	0.001	-40	8	12
mPFC	1	0.997	3.32	0.001	2	36	32

Results table from the conventional mass univariate analysis. The conjunction [Flavor pleasantness] & [image pleasantness], and contrasts [flavor pleasantness – image pleasantness] and [image pleasantness – flavor pleasantness] are reported.

Table S3: SL FNTSA Flavor and Image Pleasantness, ICA on flavor task, Constrained ICA on image task

				MNI			Flavor pleasantness*		Image pleasantness*	
FN	**Label**	**Peak Areas**	**T max**	**x**	**y**	**z**	**T max**	**P corr**	**T max**	**P corr**
1	Gustatory network	L Postcentral gyrus	17.95	-52	-10	32	-2.92	0.984	-2.37	1.000
		R Postcentral gyrus	20.09	54	-6	28				
		L Cerebellum	14.26	-12	-60	-24				
		R Cerebellum	22.39	20	-60	-20				
32	Gustatory network	L ventral Insula	17.25	-42	14	-10	0.92	1.000	-2.56	0.998
		R ventral Insula	28.65	50	10	-10				
84+	Gustatory network	L aInsula	27.01	-40	4	0	-4.87	0.003	-1.15	1.000
		R aInsula	26.76	42	14	-2				
19	Olfactory network	L Amygdala / uncus / aInsula	17.12	-20	-4	-20	-1.08	1.000	-3.68	0.215
		R Amygdala / uncus / aInsula	22.81	24	-4	-16				
65	Olfactory network	R Olfactory tract	36.71	6	20	-8	2.79	0.996	2.58	0.998
		L Olfactory tract	27.33	-6	20	-10				
28	Auditory	L STG	24.31	-40	-32	14	-0.84	1.000	-2.23	1.000
		R STG	25.67	40	-16	2				
38	Auditory	L aInsula / Operculum	21.97	-44	26	-16	1.37	1.000	-2.70	0.988
67	Auditory	L inferior frontal operculum	15.28	-52	10	8	1.62	1.000	-0.94	1.000
		L STG	14.68	-50	-42	26				
6	Somatomotor	SMA	37.51	0	8	74	-1.32	1.000	2.31	1.000
9	Somatomotor	L postcentral gyrus	27.32	-46	-30	52	-1.58	1.000	-1.97	1.000
		R Cerebellum	22.57	18	-52	-26				
10	Somatomotor	L Paracentral lobule	27.58	-8	-36	68	3.35	0.608	1.09	1.000
		R Paracentral lobule	26.65	8	-36	68				
12	Somatomotor	Bi SMA	34.1	0	30	62	-1.31	1.000	2.45	1.000
29	Somatomotor	SMA	25.57	-4	18	54	4.19	0.053	-1.94	1.000
50	Somatomotor	R Precentral Gyrus	21.34	24	-30	66	-0.90	1.000	-0.93	1.000
		L Precentral Gyrus	19.3	-18	-26	68				
53	Somatomotor	R Postcentral gyrus	19.74	36	-36	52	1.44	1.000	-2.56	0.998
54	Somatomotor	R superior parietal lobule	16.99	12	-40	70	-2.11	1.000	-1.15	1.000
		L superior parietal lobule	18.39	-18	-50	68				
64	Somatomotor	Bi SMA	24.71	2	-4	46	-1.71	1.000	-2.20	1.000
66+	Somatomotor	L Postcentral gyrus	18.55	-40	-38	48	-2.50	1.000	-4.37	0.019
		R Postcentral gyrus	22.28	40	-34	46				
20	Visual	Lingual gyrus	26.38	6	-78	-4	3.30	0.674	-3.94	0.093
23+	Visual	L MOG	17.9	-22	-94	-10	2.96	0.974	-4.51	0.011
		R MOG	23.81	20	-96	-8				

37	Visual	L MOG	16.34	-18	-90	-16	-2.83	0.996	3.43	0.420
		R MOG	17.82	26	-90	20				
40	Visual	L MTG	14.68	-54	-46	18	-2.28	1.000	-2.87	0.944
		R MTG	21.89	54	-20	-8				
41	Visual	L Calcarine Gyrus	21.87	-8	-68	12	-1.43	1.000	3.04	0.818
		R Calcarine Gyrus	31.04	8	-68	14				
85+	Visual	R Lingual Gyrus	29.35	16	-48	-10	1.47	1.000	-4.85	0.000
		L Lingual Gyrus	25.08	-20	-54	-10				
87+	Visual	Bi Cuneus	21.39	-2	-82	14	-2.38	1.000	-4.26	0.028
7	Subcortical	L Thalamus	45.59	-12	-10	18	-2.10	1.000	2.60	0.998
		R Thalamus	26.74	12	-8	16				
8	Subcortical	Thalamus	34.45	-2	4	12	3.97	0.124	2.15	1.000
13	Subcortical	L Striatum	25.85	-26	-12	-2	-1.21	1.000	-2.42	1.000
		R Striatum	24.65	30	-6	0				
44	Subcortical	R Hypothalamus	22.33	6	-6	0	-0.96	1.000	-1.23	1.000
		L Hypothalamus	18.7	-8	-6	0				
48	Subcortical	L Thalamus (MDN)	23.59	-8	-22	6	1.10	1.000	-2.51	1.000
		R Thalamus (MDN)	19.12	8	-22	6				
		R posterior Insula	21.46	42	-10	6				
56	Subcortical	R Putamen	19.75	12	14	4	-2.32	1.000	3.10	0.766
		L Putamen	20.44	-20	12	4				
73	Subcortical	Bi Hypothalamus	27.62	4	2	-16	-1.89	1.000	-2.94	0.898
34+	DMN	mOFC	33.88	4	38	14	4.52	0.015	2.63	0.996
45+	DMN	Bi Precuneus	22.25	4	-50	44	-2.86	0.992	4.24	0.031
49+	DMN	Bi Precuneus	47.75	6	-40	0	-1.78	1.000	4.86	0.000
57+	DMN	R Precuneus	20.89	16	-70	44	2.68	1.000	-4.60	0.005
		L Precuneus	22.32	-12	-74	46				
58	DMN	R Angular Gyrus	22.26	56	-54	36	3.19	0.822	2.77	0.971
		L Angular Gyrus	16.33	-54	-58	34				
59	DMN	R Cuneus	29.54	16	-62	20	0.57	1.000	4.00	0.078
		L Cuneus	21.86	-12	-62	16				
60	DMN	Bi medial frontal gyrus	31.09	4	40	28	2.18	1.000	2.87	0.944
68	DMN	Bi PCC	26.8	-10	-10	34	1.33	1.000	2.83	0.957
69	DMN	Bi Precuneus	21.28	2	-46	56	-1.57	1.000	-3.71	0.199
77+	DMN	Bi PCC	29.09	8	-30	24	1.55	1.000	4.37	0.019
81+	DMN	Bi ventromedial PFC	20.48	2	52	-10	0.62	1.000	5.14	0.000
		Bi PCC	17.36	-2	-52	20				
82+	DMN	Bi Precuneus	33.86	-6	-50	36	2.08	1.000	4.28	0.026
83+	DMN	Bi ventromedial PFC	30.06	-4	30	6	2.29	1.000	5.40	0.000
98+	DMN	Bi medial frontal gyrus	26.47	-2	48	14	1.96	1.000	4.97	0.000
14+	Cognitive	L Parahippocampal gyrus /	20.62	-34	-2	-34	-0.98	1.000	-4.19	0.034

	Control	frontal pole								
		R Parahippocampal gyrus / frontal pole	29.23	24	-10	-32				
46+	Cognitive Control	L Parahippocampal gyrus	29.64	-20	-12	-26	-1.50	1.000	1.24	1.000
		R Parahippocampal gyrus	23.9	26	-10	-24				
47+	Cognitive Control	R Superior Frontal Gyrus	31.08	22	48	44	3.26	0.732	2.44	1.000
		L Superior Frontal Gyrus	20.42	-18	40	44				
62	Cognitive Control	L middle frontal gyrus	18.29	-34	54	4	2.98	0.968	-2.20	1.000
		L inferior parietal lobule	16.58	-34	-60	48				
70	Cognitive Control	R anterior Insula	24.09	40	20	-10	-1.51	1.000	2.82	0.960
		L anterior Insula	19.3	-34	16	-14				
		Bi ACC	20.49	6	38	18				
74	Cognitive Control	R Temporal pole	23.02	38	6	-30	-1.97	1.000	-3.79	0.153
		R Parahippocampal gyrus	21.38	34	-16	-26				
75+	Cognitive Control	L middle frontal gyrus	22.56	-52	14	30	2.53	1.000	-5.31	0.000
		R middle frontal gyrus	21.51	50	22	22				
80+	Cognitive Control	R Parahippocampal gyrus	24.16	22	-18	-14	-1.77	1.000	4.53	0.009
		L Parahippocampal gyrus	19.97	-20	-18	-16				
86	Cognitive Control	L IFG	21.72	52	36	-6	1.23	1.000	-1.28	1.000
		L MTG	14.47	62	-24	-10				
88	Cognitive Control	L Temporal pole	30.75	-36	18	-24	2.50	1.000	-1.18	1.000
		L Parahippocampal gyrus	16.7	-18	-8	-26				
89	Cognitive Control	R ITG	30.65	46	-72	-20	-1.38	1.000	-2.61	0.997
90	Cognitive Control	L Temporal pole	19.63	-42	6	-32	-1.29	1.000	2.79	0.964
92	Cognitive Control	R middle frontal gyrus	28.07	30	52	-8	-1.65	1.000	3.89	0.107
		L middle frontal gyrus	14.22	-32	42	-6				
95	Cognitive Control	Bi ACC	30.8	-4	28	22	-2.45	1.000	2.40	1.000
25	Cerebellum	L Cerebellum	25.71	-10	-50	-60	-0.83	1.000	1.33	1.000
		R Cerebellum	32.41	10	-46	-58				
33	Cerebellum	Bi Cerebellum	36.5	2	-52	-30	-1.42	1.000	-3.70	0.202
35+	Cerebellum	Bi Cerebellum	26.06	0	-74	-22	-2.73	0.998	-4.60	0.004
43	Cerebellum	Bi Cerebellum	42.22	12	-60	-16	-1.85	1.000	2.52	1.000
51	Cerebellum	R Cerebellum	27.71	16	-72	-48	-1.39	1.000	2.54	0.998
		L Cerebellum	23.06	-18	-62	-48				
61	Cerebellum	Vermis	42.5	-2	-38	-2	-1.99	1.000	3.04	0.811
72	Cerebellum	R Cerebellum	38.61	26	-66	-38	1.22	1.000	3.28	0.583
		L Cerebellum	27.43	-16	-76	-34				
91	Cerebellum	R Cerebellum	23.82	30	-48	-56	-2.71	0.998	3.45	0.404
96	Cerebellum	R Cerebellum	14.05	8	-52	-50	1.12	1.000	2.49	1.000
55	Brainstem/	Bi Periaqueductal grey	25.78	-4	-26	-2	0.72	1.000	-2.00	1.000

	midbrain									
78	Brainstem/ midbrain	Bi Pons	26.12	-4	-20	-36	-2.19	1.000	3.04	0.818
94	Brainstem/ midbrain	Bi Pons	20.66	-12	-34	-44	-1.44	1.000	-2.30	1.000
101	Brainstem/ midbrain	Bi Accessory nucleus	24.02	-2	-34	-64	-1.45	1.000	3.88	0.111

*Relation between the time course of each functional network and stimulus pleasantness ratings. T-values are calculated using linear mixed models and corrected P-values are calculated using permutation maximum statistics (see Methods).

Functional networks related to flavor pleasantness and image pleasantness are highlighted in blue and orange, respectively.
Abbreviations: FN: functional network; Bi: bilateral; aInsula: anterior insula; STG: superior temporal gyrus; SMA: supplementary motor area; MOG: middle occipital gyrus; mOFC: medial orbitofrontal cortex; ACC: anterior cingulate gyrus; PCC: posterior cingulate gyrus; PFC: prefrontal cortex; IFG: inferior frontal gyrus; MTG: middle temporal gyrus; ITG: inferior temporal gyrus.

Table S4: SL FNTSA Flavor and Image Pleasantness, ICA on image task, Constrained ICA on flavor task

				MNI			Flavor pleasantness*		Image pleasantness*	
FN	**Label**	**Peak Areas**	**T max**	**x**	**y**	**z**	**T max**	**P corr**	**T max**	**P corr**
29	Gustatory	L Postcentral gyrus	21.8	-44	-14	32	-0.81	1.000	1.61	1.000
		R Postcentral gyrus	15.33	48	-10	32				
		L Cerebellum	9.33	-12	-60	-20				
		R Cerebellum	12.12	16	-60	-20				
16	Auditory	L inferior frontal operculum	14.63	-52	20	-52	2.53	0.989	1.23	1.000
		L MTG	10.83	-54	-38	-6				
		Bi SMA	14.15	-6	16	62				
50	Auditory	L STG	22.45	-60	-26	12	-0.31	1.000	2.27	0.993
		R STG	23.42	56	-22	12				
1	Somatomotor	Bi SMA	21.05	2	10	44	-1.01	1.000	2.30	0.990
		L Insula	13.01	-42	12	-4				
		R Insula	13.68	44	4	2				
21	Somatomotor	R Precentral Gyrus	18.55	52	-12	48	0.20	1.000	0.03	1.000
		Left Cerebellum	14.45	-22	-58	-52				
25	Somatomotor	Bi SMA	22.31	2	36	58	1.14	1.000	2.89	0.650
38	Somatomotor	L postcentral gyrus	26.02	-46	-30	48	0.77	1.000	0.48	1.000
42	Somatomotor	Bi SMA	27.36	2	-32	52	1.83	1.000	1.96	1.000
3	Visual	Bi Cuneus	15.41	-4	-90	24	1.12	1.000	3.37	0.249
5	Visual	R MOG	18.09	44	-64	-14	1.32	1.000	2.18	0.996
		L MOG	13.17	-40	-86	-2				
24	Visual	R Lingual Gyrus	11.39	-18	-92	-12	1.80	1.000	2.15	0.997
		L Lingual Gyrus	16.69	26	-94	-14				
33	Visual	Bi Calcarine Gyrus	25.05	2	-68	10	1.70	1.000	2.44	0.972
35	Visual	L Fusiform Gyrus	24.24	-22	-54	14	0.65	1.000	1.91	1.000
		R Fusiform Gyrus	19.79	18	-60	-16				
36	Visual	L Calcarine Gyrus	20.72	-8	-46	4	0.56	1.000	2.95	0.593
		R Calcarine Gyrus	18.75	10	-50	2				
47	Visual	R Lingual Gyrus	32.45	6	-42	2	0.25	1.000	4.55	0.003
		L Lingual Gyrus	24.81	-8	-52	2				
51	Visual	Bi Calcarine Gyrus	26.18	2	-78	6	3.02	0.701	2.29	0.992
		Bi Supperior colliculi	9.55	6	-32	-6				
6	Subcortical	L Hippocampus	19.16	-26	-18	-14	0.02	1.000	4.47	0.005
		R Hippocampus	15.41	22	22	-12				
26	Subcortical	R Caudate	19.39	16	0	16	0.32	1.000	2.39	0.980
		L Caudate	14.92	-16	8	14				
30	Subcortical	R Amygdala	18.45	24	-2	-20	0.68	1.000	-0.51	1.000

		L Amygdala	16.79	-20	-4	-20				
46	Subcortical	L Thalamus	25.18	-12	0	6	1.34	1.000	2.62	0.886
		R Thalamus	20.76	10	0	6				
2	DMN	R Precuneus	17.52	28	-44	58	-0.92	1.000	1.19	1.000
		L Precuneus	11.21	-26	-50	-58				
7	DMN	Bi mOFC	24.14	-6	42	-14	1.47	1.000	3.54	0.145
		Bi Posterior Cingulate gyrus	16.81	-6	-50	20				
12	DMN	Bi ventromedial PFC	21.87	-8	42	6	1.24	1.000	7.45	0.000
19	DMN	Posterior Cingulate gyrus	26.51	-4	-24	42	0.53	1.000	2.11	0.998
		Bi ventromedial PFC	18.48	0	44	0				
20	DMN	Bi Medial frontal gyrus	22.5	-2	54	40	2.83	0.871	0.70	1.000
31	DMN	Bi Precuneus	17.25	-6	-66	62	1.55	1.000	5.40	0.000
		R Superior Frontal Gyrus	11.27	26	4	60				
		L Superior Frontal Gyrus	7.69	-26	6	60				
44	DMN	R Precuneus	20.56	28	-74	30	2.85	0.861	0.02	1.000
		L Precuneus	13.73	-26	-78	30				
49	DMN	Posterior Cingulate gyrus	28.4	8	-32	24	2.49	0.992	4.48	0.005
		Cuneus	17.39	0	-72	32				
4	Cognitive Control	R aInsula / Operculum	26.17	54	14	2	0.03	1.000	1.08	1.000
		L aInsula / Operculum	21.75	-36	26	-6				
		Bi SMA / ACC	16.11	-2	16	50				
9	Cognitive Control	R Angular Gyrus	23.13	58	-54	32	2.17	1.000	4.75	0.001
		L Angular Gyrus	22.47	-52	-56	34				
14	Cognitive Control	R middle frontal gyrus	18.86	58	14	28	3.11	0.597	-0.73	1.000
		L middle frontal gyrus	21.51	-46	38	8				
15	Cognitive Control	R Supramarginal gyrus / MTG	22.45	60	-44	30	-1.24	1.000	2.01	1.000
		L Supramarginal gyrus / MTG	13.12	-54	-56	8				
		Bi Precuneus	16.13	-8	-46	40				
41	Cognitive Control	R Angular Gyrus	18.53	46	-68	34	3.77	0.103	2.61	0.891
		R middle frontal gyrus	18.33	48	26	34				
48	Cognitive Control	Medial frontal gyrus	21.76	2	52	24	1.64	1.000	4.50	0.005
		L middle frontal gyrus	16.48	-24	50	22				
		R middle frontal gyrus	15.76	28	50	22				
39	Cerebellum	R Cerebellum	24.93	34	-70	-40	0.84	1.000	5.64	0.000
		R Cerebellum	12.19	-32	-74	-30				
8	Brainstem/midbrain	Brainstem	16.74	10	-18	-58	0.44	1.000	2.26	0.993

*Relation between the time course of each functional network and stimulus pleasantness ratings. T-values are calculated using linear mixed models and corrected P-values are calculated using permutation maximum statistics (see Methods).

Functional networks related to flavor pleasantness and image pleasantness are highlighted in blue and orange, respectively.
Abbreviations: FN: functional network; Bi: bilateral; aInsula: anterior insula; STG: superior temporal gyrus; SMA: supplementary motor area; MOG: middle occipital gyrus; mOFC: medial orbitofrontal cortex; ACC: anterior cingulate gyrus; PCC: posterior cingulate gyrus; PFC: prefrontal cortex; IFG: inferior frontal gyrus; MTG: middle temporal gyrus; ITG: inferior temporal gyrus.

Table S4: SL FNTSA Rating vs. baseline, ICA on Flavor task, Constrained ICA on image task

				MNI			Rating in Flavor Task		Rating in image Task	
FN	**Label**	**Peak Areas**	**T max**	**x**	**y**	**z**	**T max**	**P corr**	**T max**	**P corr**
67	Auditory	L inferior frontal operculum	15.28	-52	10	8	5.57	<0.001	15.03	<0.001
		L STG	14.68	-50	-42	26				
6	Somatomotor	SMA	37.51	0	8	74	5.94	<0.001	6.68	<0.001
9	Somatomotor	L postcentral gyrus	27.32	-46	-30	52	10.34	<0.001	15.73	<0.001
		R Cerebellum	22.57	18	-52	-26				
10	Somatomotor	L Paracentral lobule	27.58	-8	-36	68	3.57	0.026	5.01	<0.001
		R Paracentral lobule	26.65	8	-36	68				
12	Somatomotor	Bi SMA	34.1	0	30	62	8.58	<0.001	11.05	<0.001
54	Somatomotor	R superior parietal lobule	16.99	12	-40	70	5.52	<0.001	3.71	0.03
		L superior parietal lobule	18.39	-18	-50	68				
64	Somatomotor	Bi SMA	24.71	2	-4	46	6.24	<0.001	8.39	<0.001
37	Visual	L MOG	16.34	-18	-90	-16	9.98	<0.001	3.89	0.017
		R MOG	17.82	26	-90	20				
7	Subcortical	L Thalamus	45.59	-12	-10	18	5.39	<0.001	5.47	<0.001
		R Thalamus	26.74	12	-8	16				
57^{+}	DMN	R Precuneus	20.89	16	-70	44	18.22	<0.001	16.55	<0.001
		L Precuneus	22.32	-12	-74	46				
69	DMN	Bi Precuneus	21.28	2	-46	56	17.26	<0.001	7.51	<0.001
75^{+}	Cognitive Control	L middle frontal gyrus	22.56	-52	14	30	4.94	<0.001	3.95	0.012
		R middle frontal gyrus	21.51	50	22	22				
92	Cognitive Control	R middle frontal gyrus	28.07	30	52	-8	5.98	<0.001	20.42	<0.001
		L middle frontal gyrus	14.22	-32	42	-6				
94	Brainstem/midbrain	Bi Pons	20.66	-12	-34	-44	3.70	0.02	3.93	0.015

Table S5: SL FNTSA rating vs. baseline, ICA on image task, Constrained ICA on flavor task

				MNI			Rating in flavor Task		Rating in image Task	
FN	**Label**	**Peak Areas**	**T max**	**x**	**y**	**z**	**T max**	**P corr**	**T max**	**P corr**
25	Somatomotor	SMA	22.31	2	36	58	8.55	< 0.001	13.53	< 0.001
38	Somatomotor	L postcentral gyrus	26.02	-46	-30	48	9.45	< 0.001	15.22	< 0.001
42	Somatomotor	SMA	27.36	2	-32	52	4.14	0.001	4.35	< 0.001
47	Visual	R Lingual Gyrus	32.45	6	-42	2	7.33	< 0.001	4.75	< 0.001
		L Lingual Gyrus	24.81	-8	-52	2				
46	Subcortical	L Thalamus	25.18	-12	0	6	6.78	< 0.001	4.66	< 0.001
		R Thalamus	20.76	10	0	6				
44	DMN	R Precuneus	20.56	28	-74	30	18.04	< 0.001	14.99	< 0.001
		L Precuneus	13.73	-26	-78	30				
49	DMN	Posterior Cingulate gyrus	28.4	8	-32	24	5.23	< 0.001	8.85	< 0.001
		Cuneus	17.39	0	-72	32				
14	Cognitive Control	R middle frontal gyrus	18.86	58	14	28	4.73	< 0.001	4.89	< 0.001
		L middle frontal gyrus	21.51	-46	38	8				
48	Cognitive Control	Medial frontal gyrus	21.76	2	52	24	5.79	< 0.001	12.75	< 0.001
		L middle frontal gyrus	16.48	-24	50	22				
		R middle frontal gyrus	15.76	28	50	22				
39	Cerebellum	R Cerebellum	24.93	34	-70	-40	6.87	< 0.001	7.57	< 0.001
		R Cerebellum	12.19	-32	-74	-30				